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January 31, 2019

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: **Duke Energy Progress, LLC–Monthly Power Plant Performance Report
Docket No. 2006-224-E**

Dear Ms. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of December 2018.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

Period: December, 2018

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	None					
	2	None					
Harris	1	None					
Robinson	2	None					

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December 2018**

Lee Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1B	12/8/2018 12:25:00 AM To 12/10/2018 5:35:00 AM	Sch	5120	Gas Turbine - Hydraulic Oil System	Replaced hydraulic oil conditioning pump. Repair leaking gasket on inlet bleed heat.	
1C	12/1/2018 12:33:00 AM To 12/3/2018 5:30:00 PM	Sch	4510	Generator Rotor Collector Rings	Replace generator collector blower motor.	

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
7	12/6/2018 1:27:00 AM To 12/6/2018 5:09:00 AM	Unsch	5041	Gas Turbine - Fuel Piping And Valves	Failed solenoid on aux stop valve.	

Sutton Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	11/30/2018 12:00:00 PM To 12/1/2018 3:00:00 PM	Sch	5105	Gas Turbine - Diverter Dampers	Performing inspection on 01A CT bypass stack	
1A	12/6/2018 1:12:00 PM To 12/6/2018 4:31:00 PM	Sch	6134	Other Main Steam Valves (including Vent And Drain.	HRH Bypass valve repair	
1B	11/30/2018 12:00:00 PM To 12/1/2018 3:00:00 PM	Sch	5105	Gas Turbine - Diverter Dampers	Performing inspection on 01B CT bypass stack	
ST1	9/21/2018 12:16:00 AM To 12/11/2018 9:33:00 PM	Unsch	9000	Flood	Plant shutdown due to post hurricane flooding	

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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December 2018
Brunswick Nuclear Station

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	744	744		
(C) Net Gen (mWh) and Capacity Factor (%)	697,735	99.98	657,360	94.80
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	20,884	2.99	8,740	1.26
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-20,747	-2.97	27,308	3.94
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	697,872	100.00%	693,408	100.00%
(K) Equivalent Availability (%)		96.96		94.72
(L) Output Factor (%)		99.98		94.80
(M) Heat Rate (BTU/NkWh)		10,290		10,666

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**December 2018
Harris Nuclear Station**

Unit 1

(A) MDC (mW)	932	
(B) Period Hours	744	
(C) Net Gen (mWh) and Capacity Factor (%)	741,912	107.00
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-48,504	-7.00
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	693,408	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		107.00
(M) Heat Rate (BTU/NkWh)		10,085

* Estimate
FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**December 2018
Robinson Nuclear Station**

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	744	
(C) Net Gen (mWh) and Capacity Factor (%)	572,801	103.90
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	7,187	1.30
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-28,684	-5.20
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	551,304	100.00%
(K) Equivalent Availability (%)		98.70
(L) Output Factor (%)		103.90
(M) Heat Rate (BTU/NkWh)		10,152

* Estimate
FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December 2018**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	744	744	744	744	744
(C) Net Generation (mWh)	123,154	124,865	123,833	228,319	600,171
(D) Capacity Factor (%)	73.57	73.93	73.00	80.97	76.17
(E) Net mWh Not Generated due to Full Scheduled Outages	0	12,069	14,809	0	26,877
(F) Scheduled Outages: percent of Period Hrs	0.00	7.15	8.73	0.00	3.41
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	33,037	33,037
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	11.72	4.19
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	44,246	31,954	30,990	20,620	127,810
(N) Economic Dispatch: percent of Period Hrs	26.43	18.92	18.27	7.31	16.22
(O) Net mWh Possible in Period	167,400	168,888	169,632	281,976	787,896
(P) Equivalent Availability (%)	100.00	92.85	91.27	88.28	92.40
(Q) Output Factor (%)	83.31	79.62	80.13	80.97	80.98
(R) Heat Rate (BTU/NkWh)	8,861	9,203	9,232	4,164	7,222

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December 2018**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	189	189	175	553
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	112,762	107,601	121,632	341,995
(D) Capacity Factor (%)	80.19	76.52	93.42	83.12
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	699	0	0	699
(J) Forced Outages: percent of Period Hrs	0.50	0.00	0.00	0.17
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	303	303
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.23	0.07
(M) Net mWh Not Generated due to Economic Dispatch	27,155	33,015	8,265	68,435
(N) Economic Dispatch: percent of Period Hrs	19.31	23.48	6.35	16.63
(O) Net mWh Possible in Period	140,616	140,616	130,200	411,432
(P) Equivalent Availability (%)	99.50	100.00	99.77	99.76
(Q) Output Factor (%)	81.96	81.88	94.79	86.08
(R) Heat Rate (BTU/NkWh)	11,088	11,082	0	7,142

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December 2018**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	138,032	138,699	166,384	443,115
(D) Capacity Factor (%)	85.89	86.31	90.18	87.59
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	22,672	22,005	18,128	62,805
(N) Economic Dispatch: percent of Period Hrs	14.11	13.69	9.82	12.41
(O) Net mWh Possible in Period	160,704	160,704	184,512	505,920
(P) Equivalent Availability (%)	100.00	100.00	100.00	100.00
(Q) Output Factor (%)	85.89	86.31	90.18	87.59
(R) Heat Rate (BTU/NkWh)	11,137	11,049	0	6,928

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December 2018**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	117,834	117,915	97,517	333,266
(D) Capacity Factor (%)	70.70	70.75	48.37	62.30
(E) Net mWh Not Generated due to Full Scheduled Outages	4,103	3,360	0	7,463
(F) Scheduled Outages: percent of Period Hrs	2.46	2.02	0.00	1.40
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	70,880	70,880
(J) Forced Outages: percent of Period Hrs	0.00	0.00	35.15	13.25
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	44,719	45,381	33,227	123,327
(N) Economic Dispatch: percent of Period Hrs	26.83	27.23	16.48	23.05
(O) Net mWh Possible in Period	166,656	166,656	201,624	534,936
(P) Equivalent Availability (%)	97.54	97.98	64.85	85.35
(Q) Output Factor (%)	78.40	79.03	74.59	77.46
(R) Heat Rate (BTU/NkWh)	11,134	11,053	0	7,848

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
December 2018**

Mayo Station

Unit 1

(A) MDC (mW)	746
(B) Period Hrs	744
(C) Net Generation (mWh)	206,420
(D) Net mWh Possible in Period	555,024
(E) Equivalent Availability (%)	78.21
(F) Output Factor (%)	41.82
(G) Capacity Factor (%)	37.19

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
December 2018**

Roxboro Station

	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	744	744	744
(C) Net Generation (mWh)	184,792	181,366	173,462
(D) Net mWh Possible in Period	500,712	519,312	528,984
(E) Equivalent Availability (%)	83.61	91.87	73.61
(F) Output Factor (%)	76.83	83.62	53.94
(G) Capacity Factor (%)	36.91	34.92	32.79

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**January 2018 - December 2018
Brunswick Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	938		932	
(B) Period Hours	0		0	
(C) Net Gen (mWh) and Capacity Factor (%)	7,094,066	94.35	7,532,901	100.83
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	0	0.00	0	0.00
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	0	100.00%	0	100.00%
(K) Equivalent Availability (%)	85.54		93.24	
(L) Output Factor (%)	98.16		95.62	
(M) Heat Rate (BTU/NkWh)	10,458		10,767	

* Estimate
FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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January 2018 - December 2018
Harris Nuclear Station

Unit 1

(A) MDC (mW)	932	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	7,587,914	92.94
(D) Net mWh Not Gen due to Full Schedule Outages	756,318	9.26
* (E) Net mWh Not Gen due to Partial Scheduled Outages	20,006	0.25
(F) Net mWh Not Gen due to Full Forced Outages	97,689	1.20
* (G) Net mWh Not Gen due to Partial Forced Outages	-297,607	-3.65
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,164,320	100.00%
(K) Equivalent Availability (%)		89.02
(L) Output Factor (%)		103.80
(M) Heat Rate (BTU/NkWh)		10,364

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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January 2018 - December 2018
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	5,276,118	81.28
(D) Net mWh Not Gen due to Full Schedule Outages	1,297,442	19.99
* (E) Net mWh Not Gen due to Partial Scheduled Outages	99,165	1.53
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-181,565	-2.80
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,491,160	100.00%
(K) Equivalent Availability (%)		78.71
(L) Output Factor (%)		101.59
(M) Heat Rate (BTU/NkWh)		10,451

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
January, 2018 through December, 2018**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	8,760	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,440,885	1,443,265	1,463,994	2,862,522	7,210,666
(D) Capacity Factor (%)	73.10	72.58	73.30	86.22	77.73
(E) Net mWh Not Generated due to Full Scheduled Outages	73,316	85,738	88,863	132,069	379,986
(F) Scheduled Outages: percent of Period Hrs	3.72	4.31	4.45	3.98	4.10
(G) Net mWh Not Generated due to Partial Scheduled Outages	271,178	283,193	288,469	52,174	895,013
(H) Scheduled Derates: percent of Period Hrs	13.76	14.24	14.44	1.57	9.65
(I) Net mWh Not Generated due to Full Forced Outages	9,577	4,147	0	17,030	30,754
(J) Forced Outages: percent of Period Hrs	0.49	0.21	0.00	0.51	0.33
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	8,606	8,606
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.26	0.09
(M) Net mWh Not Generated due to Economic Dispatch	176,043	172,177	155,954	247,640	751,815
(N) Economic Dispatch: percent of Period Hrs	8.93	8.66	7.81	7.46	8.10
(O) Net mWh Possible in Period	1,971,000	1,988,520	1,997,280	3,320,040	9,276,840
(P) Equivalent Availability (%)	82.04	81.24	81.11	93.68	85.83
(Q) Output Factor (%)	77.68	76.39	77.07	90.71	81.94
(R) Heat Rate (BTU/NkWh)	9,069	9,151	9,060	4,469	7,258

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
January, 2018 through December, 2018**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	189	189	175	553
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,264,040	1,249,912	1,409,376	3,923,328
(D) Capacity Factor (%)	76.35	75.49	91.94	80.99
(E) Net mWh Not Generated due to Full Scheduled Outages	90,764	90,900	58,514	240,178
(F) Scheduled Outages: percent of Period Hrs	5.48	5.49	3.82	4.96
(G) Net mWh Not Generated due to Partial Scheduled Outages	171,278	175,719	57,051	404,048
(H) Scheduled Derates: percent of Period Hrs	10.35	10.61	3.72	8.34
(I) Net mWh Not Generated due to Full Forced Outages	1,121	4,665	0	5,787
(J) Forced Outages: percent of Period Hrs	0.07	0.28	0.00	0.12
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	2,566	2,566
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.17	0.05
(M) Net mWh Not Generated due to Economic Dispatch	128,437	134,444	5,492	268,373
(N) Economic Dispatch: percent of Period Hrs	7.76	8.12	0.36	5.54
(O) Net mWh Possible in Period	1,655,640	1,655,640	1,533,000	4,844,280
(P) Equivalent Availability (%)	84.11	83.61	92.29	86.53
(Q) Output Factor (%)	81.15	81.03	96.01	85.89
(R) Heat Rate (BTU/NkWh)	11,315	11,138	0	7,194

Notes:

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- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
January, 2018 through December, 2018**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,476,943	1,487,809	1,933,643	4,898,395
(D) Capacity Factor (%)	78.06	78.63	89.01	82.23
(E) Net mWh Not Generated due to Full Scheduled Outages	105,660	105,516	125,182	336,358
(F) Scheduled Outages: percent of Period Hrs	5.58	5.58	5.76	5.65
(G) Net mWh Not Generated due to Partial Scheduled Outages	204,932	200,535	0	405,468
(H) Scheduled Derates: percent of Period Hrs	10.83	10.60	0.00	6.81
(I) Net mWh Not Generated due to Full Forced Outages	4,108	277	0	4,385
(J) Forced Outages: percent of Period Hrs	0.22	0.01	0.00	0.07
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	805	805
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.04	0.01
(M) Net mWh Not Generated due to Economic Dispatch	100,517	98,022	112,850	311,389
(N) Economic Dispatch: percent of Period Hrs	5.31	5.18	5.19	5.23
(O) Net mWh Possible in Period	1,892,160	1,892,160	2,172,480	5,956,800
(P) Equivalent Availability (%)	83.37	83.81	94.20	87.46
(Q) Output Factor (%)	83.41	83.34	94.45	87.42
(R) Heat Rate (BTU/NkWh)	11,282	11,257	0	6,821

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
January, 2018 through December, 2018**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,101,793	1,113,940	1,208,835	3,424,568
(D) Capacity Factor (%)	56.15	56.77	50.92	54.37
(E) Net mWh Not Generated due to Full Scheduled Outages	251,869	273,175	252,956	778,001
(F) Scheduled Outages: percent of Period Hrs	12.84	13.92	10.66	12.35
(G) Net mWh Not Generated due to Partial Scheduled Outages	220,747	203,720	45,547	470,015
(H) Scheduled Derates: percent of Period Hrs	11.25	10.38	1.92	7.46
(I) Net mWh Not Generated due to Full Forced Outages	132,765	167,209	572,998	872,971
(J) Forced Outages: percent of Period Hrs	6.77	8.52	24.14	13.86
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	16,823	16,823
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.71	0.27
(M) Net mWh Not Generated due to Economic Dispatch	255,065	204,196	276,801	736,063
(N) Economic Dispatch: percent of Period Hrs	13.00	10.41	11.66	11.69
(O) Net mWh Possible in Period	1,962,240	1,962,240	2,373,960	6,298,440
(P) Equivalent Availability (%)	69.15	67.18	62.58	66.06
(Q) Output Factor (%)	77.60	78.57	78.16	78.11
(R) Heat Rate (BTU/NkWh)	11,406	11,395	0	7,376

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
January, 2018 through December, 2018**

Mayo Station

Units	Unit 1
(A) MDC (mW)	746
(B) Period Hrs	8,760
(C) Net Generation (mWh)	1,491,333
(D) Net mWh Possible in Period	6,534,960
(E) Equivalent Availability (%)	69.68
(F) Output Factor (%)	39.69
(G) Capacity Factor (%)	22.82

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
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Roxboro Station

Units	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	8,760	8,760	8,760
(C) Net Generation (mWh)	1,895,094	1,530,179	1,678,155
(D) Net mWh Possible in Period	5,895,480	6,114,480	6,228,360
(E) Equivalent Availability (%)	76.80	62.55	53.55
(F) Output Factor (%)	53.02	50.76	55.79
(G) Capacity Factor (%)	32.14	25.03	26.94

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
December, 2018

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Full Outage Hours

<u>Unit Name</u>	<u>Capacity Rating (mW)</u>	<u>Scheduled</u>	<u>Unscheduled</u>	<u>Total</u>
Brunswick 1	938	0.00	0.00	0.00
Brunswick 2	932	0.00	0.00	0.00
Harris 1	932	0.00	0.00	0.00
Robinson 2	741	0.00	0.00	0.00

Duke Energy Progress
Outages for 100 mW or Larger Units
December 2018

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Asheville Steam 1	192	0.00	0.00	0.00
Asheville Steam 2	192	0.00	0.00	0.00
Asheville CT 3	185	0.00	0.00	0.00
Asheville CT 4	185	0.00	0.00	0.00
Darlington CT 12	133	176.00	0.00	176.00
Darlington CT 13	133	0.00	0.00	0.00
Lee Energy Complex CC 1A	225	0.00	0.00	0.00
Lee Energy Complex CC 1B	227	53.17	0.00	53.17
Lee Energy Complex CC 1C	228	64.95	0.00	64.95
Lee Energy Complex CC ST1	379	0.00	0.00	0.00
Mayo Steam 1	746	18.92	0.00	18.92
Richmond County CT 1	189	0.00	7.43	7.43
Richmond County CT 2	187	0.00	0.00	0.00
Richmond County CT 3	185	0.00	0.75	0.75
Richmond County CT 4	186	0.00	0.00	0.00
Richmond County CT 6	187	0.00	0.00	0.00
Richmond County CC 7	189	0.00	3.70	3.70
Richmond County CC 8	189	0.00	0.00	0.00
Richmond County CC ST4	175	0.00	0.00	0.00
Richmond County CC 9	216	0.00	0.00	0.00
Richmond County CC 10	216	0.00	0.00	0.00
Richmond County CC ST5	248	0.00	0.00	0.00

Notes:

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Duke Energy Progress
Outages for 100 mW or Larger Units
December 2018

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Roxboro Steam 1	380	225.42	0.00	225.42
Roxboro Steam 2	673	108.10	0.00	108.10
Roxboro Steam 3	698	57.38	0.00	57.38
Roxboro Steam 4	711	193.12	0.00	193.12
Sutton Energy Complex CC 1A	224	18.32	0.00	18.32
Sutton Energy Complex CC 1B	224	15.00	0.00	15.00
Sutton Energy Complex CC ST1	271	0.00	261.55	261.55
Wayne County CT 10	192	0.00	0.00	0.00
Wayne County CT 11	192	59.00	0.00	59.00
Wayne County CT 12	193	0.00	0.00	0.00
Wayne County CT 13	191	0.00	0.00	0.00
Wayne County CT 14	195	6.00	0.00	6.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.